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Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)				
		10/603,665	KAWAKITA ET AL.				
	Office Action Summary	Examiner	Art Unit				
		Paul Kim	2161				
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHO WHIC - Exten after S - If NO - Failun Any re	DRTENED STATUTORY PERIOD FOR REPL HEVER IS LONGER, FROM THE MAILING D sions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. period for reply is specified above, the maximum statutory period e to reply within the set or extended period for reply will, by statut sply received by the Office later than three months after the mailin d patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be tim will apply and will expire SIX (6) MONTHS from the, cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status							
2a)☐ 3)☐	Responsive to communication(s) filed on <u>26 .</u> This action is FINAL . 2b)⊠ Thi Since this application is in condition for allowa	s action is non-final. ance except for formal matters, pro					
Disposition	Disposition of Claims						
5)□ 6)⊠ 7)□	Claim(s) 1-19 is/are pending in the application (a) Of the above claim(s) is/are withdra (claim(s) is/are allowed. (claim(s) 1-19 is/are rejected. (claim(s) is/are objected to. (claim(s) are subject to restriction and/	awn from consideration.					
Application	on Papers						
10)⊠ 1	The specification is objected to by the Examin The drawing(s) filed on <u>26 June 2003</u> is/are: a Applicant may not request that any objection to the Replacement drawing sheet(s) including the correction or declaration is objected to by the E	a) accepted or b) objected to e drawing(s) be held in abeyance. Section is required if the drawing(s) is objection	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. SAM RIMELL PRIMARY EXAMINER							
2) Notice 3) Inform	(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449 or PTO/SB/08 No(s)/Mail Date 26 June 2003.	4) Interview Summary Paper No(s)/Mail Do 5) Notice of Informal P 6) Other:	(PTO-413)				

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DETAILED ACTION

This Office Action is responsive to the following: Original application filed on June 26,
 2003.

2. Claims 1-19 are pending. Claims 1 and 13 are independent.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 1-4, 13, and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Clapp (U.S. Patent No. 5,893,914, hereinafter referred to as CLAPP), filed on March 7, 1997, and issued on April 13, 1999.
- 5. Regarding independent claim 1, CLAPP teaches:

An electronic document information expansion apparatus for expanding information on an electronic document comprising:

an input section inputting the electronic document {See CLAPP, Figure 20, step 204; and col. 8, line 67 - col. 9, line 1, wherein this reads over "the template and the decision index of the document are stored in memory"};

an information analysis section extracting location information on data included in an input electronic document from the electronic document {See CLAPP, Fig. 20, steps 206, 222, and 226; Fig. 21, flow chart 260; and col. 9, lines 58-60, wherein this reads over "[g]etting the start and end locations of a template block"};

an external data acquisition section acquiring external data that can be added to the electronic document based on the extracted location information {See

CLAPP, Fig. 22, step 318; and col. 11, lines 21-25, wherein this reads over "[i]f it is the start of a blank, then in step 318 the answer is retrieved if it exists"};

an information addition section generating addition data to be added to said electronic document using the acquired external data {See CLAPP, Fig. 22, Steps 320 and 322; and col. 11, lines 23-27, wherein this reads over "inquiry is made in step 320 as to whether the blank has been answered to create a document block from the answered blank. If it is, then in step 322 the answer character is stored in the document block and the system returns to step 306"}; and

a structured data generation section combining the addition data generated by said information addition section with said electronic document, and generating structured data with the information on the electronic document expanded {See CLAPP, Fig. 20, steps 230 and 250; and col. 9, lines 28-30, wherein this reads over "the template blocks and the answers are combined in step 230 to create a document block"}.

6. Regarding dependent claim 2, CLAPP teaches:

The electronic document information expansion apparatus according to claim 1, wherein said information analysis section analyzes and divides said input electronic document into information units {See CLAPP, col. 7, lines 42-46, wherein this reads over "any portions of that section of the template which contains square brackets is scanned for its identifier"}, and extracts the location information on the data included in each of the information units {See CLAPP, Fig. 20, steps 206, 222, and 226; Fig. 21, flow chart 260; and col. 9, lines 58-60, wherein this reads over "[g]etting the start and end locations of a template block"}.

7. Regarding **dependent claim 3**, CLAPP teaches:

The electronic document information expansion apparatus according to claim 2, wherein said external data acquisition section acquires the external data that can be reached by tracking the location information up to preset hierarchies from a location indicated by the location information on the data included in each of the information units {See CLAPP, Figs. 4 and 5; Fig. 22, step 318; col. 7, lines 27-31, wherein this reads over "utilizing the decision index to control the sequence of selection of the template sections that are to be joined to make the document block and simultaneously pulling in the proper answers from the answer index"}.

8. Regarding dependent claim 4, CLAPP teaches:

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The electronic document information expansion apparatus according to claim 2, wherein said external data acquisition section acquires the external data after determining whether the external data is similar to one of the electronic document as an information expansion target and a content of each of the information units {See CLAPP, col. 7, lines 44-47, wherein this reads over "any portions of that section of the template which contains square brackets is scanned for its identifier. When the identifier . . . is found, a search is made in answer index . . . and the answer is reproduced"}.

9. Regarding **dependent claim 13**, CLAPP teaches:

An electronic document information expansion method for expanding information on an electronic document, the method comprising:

an information analysis step of extracting location information on data included in an input electronic document from the electronic document {See CLAPP, Fig. 20, steps 206, 222, and 226; Fig. 21, flow chart 260; and col. 9, lines 58-60, wherein this reads over "[g]etting the start and end locations of a template block"};

an external data acquisition step of acquiring external data that can be added to the electronic document based on the extracted location information {See CLAPP, Fig. 20, step 220; and col. 5, line 67 – col. 6, line 4, wherein this reads over "information is immediately stored in the answer index 99 so that the first few lines of information . . . appear in column 102 and are accumulated or stored"};

an information addition step of generating addition data to be added to said electronic document using the acquired external data; and a structured data generation step of combining the addition data generated in said information addition step with said electronic document {See CLAPP, Fig. 22, step 318; and col. 11, lines 21-25, wherein this reads over "[i]f it is the start of a blank, then in step 318 the answer is retrieved if it exists"}, and

generating structured data with the information on the electronic document expanded {See CLAPP, Fig. 20, steps 230 and 250; and col. 9, lines 28-30, wherein this reads over "the template blocks and the answers are combined in step 230 to create a document block"}.

- 10. Regarding **dependent claim 18**, CLAPP inherently contains a program described in codes that are processed by a computer because a program must contain code or programming language in order to be accessed and processed by a computer.
- 11. Regarding dependent claim 19, CLAPP teaches:

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A recording medium recording the electronic document information expansion program according to claim 18 (See CLAPP, Fig. 1, Element 16).

Claim Rejections - 35 USC § 103

- 12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 13. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over CLAPP, in view of Schillit et al (U.S. Patent No. 6,356,922, hereinafter referred to as SCHILIT), filed on June 19, 1998, and issued on March 12, 2002.

CLAPP teaches the limitations of claims 1-4, 13, and 18-19 for the reasons stated above.

CLAPP differs from the claimed invention in that CLAPP fails to disclose an apparatus wherein an external data acquisition section acquires external data which has a similarity exceeds a certain threshold (claim 5).

CLAPP differs from the claimed invention in that CLAPP fails to disclose an apparatus wherein an external data acquisition section acquires external data which has the highest similarity to one of the electronic documents (claim 6).

14. Regarding **dependent claim 5**, CLAPP, in combination with SCHILIT, discloses an electronic document information expansion apparatus wherein an external data acquisition section acquires the external data only when a similarity exceeds a certain threshold in determining whether the external data is similar to one of the electronic document as the information expansion target and the content of each of the information units *{See SCHILIT, col.*}

5, lines 56-59, wherein this reads over "related target portions 22 are identified using the query generated in step S160 by determining the best-matching target portion and which exceeds a predetermined threshold".

The combination of inventions disclosed in CLAPP and SCHILIT would disclose an invention which would acquire external data, or "related target portions," only when a similarity exceeds a certain threshold. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by SCHILIT.

One of ordinary skill in the art would have been motivated to do this modification so that only acquired data, which has a similarity that exceeds a certain threshold, may be used in extracting data relevant to the content of the electronic document.

15. Regarding **dependent claim 6**, CLAPP, in combination with SCHILIT, discloses an electronic document information expansion apparatus wherein an external data acquisition section acquires the external data having a highest similarity to one of the electronic document as the information expansion target and the content of each of the information unit in determining whether the external data is similar to one of the electronic document as the information expansion target and the content of each of the information units {See SCHILIT, col. 5, lines 56-59, wherein this reads over "related target portions 22 are identified using the query generated in step S160 by determining the best-matching target portion and which exceeds a predetermined threshold"}.

The combination of inventions disclosed in CLAPP and SCHILIT would disclose an invention which would acquire external data having the highest similarity, or "best-matching

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target portion," to the electronic document. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by SCHILIT.

One of ordinary skill in the art would have been motivated to do this modification so that only acquired data, which has the highest similarity, may be used in extracting data relevant to the content of the electronic document.

16. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over CLAPP, in view of Bence, Jr. et al. (U.S. Patent No. 6,484,178, hereinafter referred to as BENCE), filed on December 30, 1999, and issued on November 19, 2002.

CLAPP teaches the limitations of claims 1-4, 13, and 18-19 for the reasons stated above.

CLAPP differs from the claimed invention in that CLAPP fails to disclose an apparatus which conducts a preprocessing for removing control characters other than a hyperlink, in determining whether the external data is similar to one of the electronic document (claim 7).

17. Regarding **dependent claim 7**, CLAPP, in combination with BENCE, would disclose an electronic document information expansion apparatus wherein the external data acquisition section conducts a preprocessing for removing control characters {See BENCE, col. 2, lines 11-16, wherein this reads over "functions as removing extraneous control characters and correcting for non-standard formatting conventions"} other than a hyperlink, to the external data, in determining whether the external data is similar to one of the electronic document as the information expansion target and the content of each of the information units.

"The Authoritative Dictionary of IEEE Standards Terms, 7th Edition" defines a "control character" as "[a] character that initiates some kind of physical control action but is not printed

on the output page." Therefore, the Office interprets "control character," as best understood, to encompass, but not limited to, html formatting tags (e.g. "
b", "
other tags, not printed on the output page, which may result in some other actions. The combination of inventions disclosed in CLAPP and BENCE would disclose an invention which would conduct preprocessing for removing control characters, such as html formatting tags, other than a hyperlink. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by BENCE.

One of ordinary skill in the art would have been motivated to do this modification so that control characters may be removed prior to the external data acquisition section conducting a preprocessing for extracting keywords.

CLAIMS 8-9

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18. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over CLAPP, in view of Kanno (U.S. Patent No. 6,671,683, hereinafter referred to as KANNO), filed on June 28, 2001, and issued on December 30, 2003.

CLAPP teaches the limitations of claims 1-4, 13, and 18-19 for the reasons stated above.

CLAPP differs from the claimed invention in that CLAPP fails to disclose an apparatus wherein the external data acquisition section conducts a preprocessing for extracting a keyword (claim 8).

CLAPP differs from the claimed invention in that CLAPP fails to disclose an apparatus wherein an information addition section extracts a keyword from the external data acquired by said external data acquisition section (claim 9).

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19. Regarding dependent claim 8, CLAPP, in combination with KANNO, would disclose an electronic document information expansion apparatus wherein an external data acquisition section conducts a preprocessing for extracting a keyword {See KANNO, col. 2, lines 31-53, wherein this reads over "calculation of similarity and relevancy is performed according to the following three procedures so as to obtain documents and keywords having higher similarities and relevancies, thereby realizing the similar document retrieval and the relevant keyword extraction"}, to the external data, in determining whether the external data is similar to one of the electronic document as the information expansion target and the content of each of the information units.

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The combination of inventions disclosed in CLAPP and KANNO would disclose an invention which would conduct preprocessing for extracting a keyword, specifically the calculation of similarity and relevancy of the keywords in the documents obtained. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by KANNO.

One of ordinary skill in the art would have been motivated to do this modification so that only similar and relevant keywords may be extracted.

20. Regarding **dependent claim 9**, CLAPP, in combination with KANNO, would disclose an electronic document information expansion apparatus wherein an information addition section extracts a keyword from the external data acquired by the external data acquisition section {See col. 2, lines 1-7, wherein this reads over "the LSI [latent semantic indexing] method

mechanically extracts a keyword . . . and is now assumed that a total of M kinds of keywords are extracted"}.

The combination of inventions disclosed in CLAPP and KANNO would disclose an invention which would extract a keyword, through use of a "keyword extraction method which is not limited to a specific one but a known method" already in use, from the external data acquired by the external data acquisition section. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by KANNO.

One of ordinary skill in the art would have been motivated to do this modification so that only similar and relevant keywords may be extracted, and the later expansion of information contained on an electronic document.

21. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over CLAPP, in view of Nonomura et al (USPGPUB 2002/0143742, hereinafter referred to as NONOMURA), filed on March 30, 2001, and published on October 3, 2002.

CLAPP teaches the limitations of claims 1-4, 13, and 18-19 for the reasons stated above.

CLAPP differs from the claimed invention in that CLAPP fails to disclose an apparatus wherein the structured data generation section combines a keyword extracted from a content of each of the information units with the keyword extracted from the external data, and generates structured data (claim 10).

22. Regarding **dependent claim 10**, CLAPP, in combination with NONOMURA, discloses an electronic document information expansion apparatus, wherein the structured data generation section combines a keyword extracted from a content of each of the information units with the

keyword extracted from the external data, and generates structured data {See, Fig. 12; Fig. 43, step S104-105; Fig. 56; Para. 0324, wherein this reads over "[t]he retrieval request processing device 3 combines results obtained in step S102 to generate an XML document as a retrieval result"; and Para. 0375-376, wherein this reads over "[the structured] document shown in Fig. 56 starts from having a component having tag name (component name) 'paper'..."}.

The combination of inventions disclosed in CLAPP and NONOMURA would disclose an invention which would combine keywords from the information units and external data, in order to generate structured data. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by NONOMURA.

One of ordinary skill in the art would have been motivated to do this modification so that a structured data, containing keyword tags, may be generated and output.

23. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over CLAPP, in view of NONOMURA, and in further view of Al-Kazily et al (U.S. Patent No. 6,760,694, herein after referred to as AL-KAZILY) filed on March 21, 2001, and issued on July 6, 2004.

CLAPP teaches the limitations of claims 1-4, 13, and 18-19 for the reasons stated above.

CLAPP differs from the claimed invention in that CLAPP fails to disclose an apparatus wherein the structured data generation section generates structured data while discriminating a keyword from an information unit from a keyword extracted from external data (claim 11).

24. Regarding **dependent claim 11**, NONOMURA, in combination with NONOMURA and AL-KAZILY, discloses an electronic document information expansion apparatus according, wherein the structured data generation section generates structured data while discriminating a

keyword extracted from a content of each of the information units from the keyword extracted from the external data {See AL-KAZILY, col. 8, lines 17-26, wherein this reads over "system and application software 222... to parse a content source for keywords, identify and select certain keywords from the content source based on the type of the content source, and associate the keywords with the content source. The database is then updated to include the identified keywords and references to the content sources that include the keywords"}.

The combination of inventions disclosed in CLAPP, NONOMURA, and AL-KAZILY would disclose an invention which would generate structured data while discriminating keywords, as best understood by the Office within the context of the claims, by associating the keywords with the content source. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by NONOMURA and AL-KAZILY.

One of ordinary skill in the art would have been motivated to do this modification so as to enable selecting a search target in searching the information unit.

25. Claim 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over CLAPP, in view of Maeda et al (U.S. Patent No. 6,973, 458, hereinafter referred to as MAEDA), filed on June 29, 1999, and issued on December 6, 2005.

CLAPP teaches the limitations of claims 1-4, 13, and 18-19 for the reasons stated above.

CLAPP differs from the claimed invention in that CLAPP fails to disclose an apparatus wherein the electronic document is an e-mail document (claims 12 and 17).

26. Regarding dependent claims 12 and 17, CLAPP, in combination with MAEDA, discloses an apparatus (also a method) wherein the electronic document is an e-mail document

{See MAEDA, col. 11, lines 18-30, wherein this reads over "inputs the transmission requested e-mail into the document important item extraction device . . . [and] analyzes the structure of the e-mail which is a structured document"}.

The combination of inventions disclosed in CLAPP and MAEDA would disclose an invention wherein the electronic document is an email document. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by MAEDA.

One of ordinary skill in the art would have been motivated to do this modification so that the contents of e-mails, which is a subcategory of electronic documents, may be analyzed and augmented accordingly.

27. Claim 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over CLAPP, in view BENCE, and in further view of Howard, Jr. et al (U.S. Patent No. 6,356,622, hereinafter referred to as HOWARD), filed on June 29, 1999, and issued on December 6, 2005.

CLAPP teaches the limitations of claims 1-4, 13, and 18-19 for the reasons stated above.

CLAPP differs from the claimed invention in that CLAPP fails to disclose a method wherein in the information analysis step, the input electronic document is analyzed and divided into information units, and a predetermined processing is conducted on the divided information units in the information analysis step, the external data acquisitions step, the information addition step, and the structured data generation step (claim 14).

28. Regarding **dependent claim 14**, CLAPP, in combination with BENCE and HOWARD, discloses a method wherein in the information analysis step, the input electronic document is analyzed and divided into information units {See HOWARD, col. 2, lines 46-49, wherein this

reads over "logically dividing and resolving a single file, such as a single document, into multiple articles that can be individually recognized"}, and a predetermined processing is conducted on the divided information {See BENCE, col. 2, lines 11-16, wherein this reads over "functions as removing extraneous control characters and correcting for non-standard formatting conventions"} in the information analysis step, the external data acquisitions step, the information addition step, and the structured data generation step.

The combination of inventions disclosed in CLAPP, BENCE, and HOWARD would disclose an invention which would first analyze and divide the input electronic document into information units, and conduct preprocessing for removing control characters, such as html formatting tags, other than a hyperlink, in the information analysis step, the external data acquisitions step, the information addition step, and the structured data generation step.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by CLAPP by combining it with the invention disclosed by BENCE and HOWARD.

One of ordinary skill in the art would have been motivated to do this modification so that an input electronic document may be divided into individual information units, URLs extracted, and preprocessing done on the information units so that the information units are available for analysis.

29. Regarding **dependent claim 15**, CLAPP, in combination with BENCE and HOWARD, discloses:

The electronic document information expansion method according to claim 14, wherein in said external data acquisition step, the external data that can be reached by tracking the location information up to preset hierarchies is acquired from a location indicated by the location information on the data included in each of the information units {See CLAPP, Figs. 4 and 5; Fig. 22, step

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318; col. 7, lines 27-31, wherein this reads over "utilizing the decision index to control the sequence of selection of the template sections that are to be joined to make the document block and simultaneously pulling in the proper answers from the answer index".

30. Regarding **dependent claim 16**, CLAPP, in combination with BENCE and HOWARD, discloses:

The electronic document information expansion method according to claim 14, wherein in said external data acquisition step, the external data is acquired after determining whether the external data is similar to one of the electronic document as an information expansion target and a content of each of the information units {See CLAPP, col. 7, lines 44-47, wherein this reads over "any portions of that section of the template which contains square brackets is scanned for its identifier. When the identifier . . . is found, a search is made in answer index . . . and the answer is reproduced"}.

Conclusion

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cordell (U.S. Patent No. 6,031,989) teaches the nesting of HTML and other electronic documents within a main HTML document.

Sweet et al (U.S. Patent No. 6,415,278) teaches the retrieval of documents transitively linked to an initial document.

Sweet et al (U.S. Patent No. 6,789,080) teaches a method for displaying hypertext data, wherein markup representation of the external document are converted accordingly.

Manber et al (U.S. Patent No. 6,920,609) teaches the system and method for analyzing HTML pages to automatically identify and extract desired information.

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32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is (571) 272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAM RIMELL PRIMARY EXAMINER